REMARKS

Applicants respond as follows to the Office Action mailed May 17, 2007:

Claim Objection

Claim 16 has been amended as suggested by the Examiner.

Claim Rejections 35 USC §112

The Examiner rejects claims 1,2,5,6,9-14,16-19 and 22-26 under 35 USC §112, second paragraph as being indefinite. The Examiner first argues the phrase "mixing at least some of the particles from the first second and streams" has insufficient antecedent basis in claims 1, 2 and 5. With respect to claim 1, applicants suggest that the claim as written is not indefinite. The language of the claim indicates that a first fluid stream moving in a first direction impacts a surface to redirect the first fluid stream to a second fluid stream which flows in a second direction that is substantially opposite to the first direction. Thus, the source of particles in both streams is clear. With respect to claims 2 and 5, applicants have amended the claim to address the Examiner's comments. Applicants have also amended claim 1 to recite " ...redirecting the first fluid stream..." to address the Examiner's comments in the Office Action.

Claim Rejections 35 USC § 102

The Examiner rejects claims 1,5,7,9-11,18-20,21,27 and 28 as being anticipated under 35 USC 102(b) by Midler et al (US Patent No. 5,314,506). The Examiner suggests that Midler teaches fluid streams that would impact on the surfaces of a chamber and be redirected in the substantially opposite direction and also suggests that

Midler teaches (*e.g.* in Figs. 2 and 3) that the streams do not need to be directly impinging.

Applicants respectfully suggest that Midler does not anticipate the claims of the present application. First, applicants reiterate that Midler teaches that all components must be soluble when entering a chamber and that crystallization of a compound occurs as result of the mixing within the chamber. Midler states, for example: "The temperature and composition of each solution are chosen so that 1) no material will crystallize upstream of the impinging jets...." (column 5, lines 25-26). In claim 1, of the present application, a particle suspension is formed outside the chamber and subsequently introduced into the chamber. Applicants have amended claim 1 to address the Examiner's concerns on this point and suggest claim 1 is not anticipated by Midler.

With respect to claims 5 and 7, applicants respectfully disagree that Midler teaches fluid streams that "substantially avoid direct impingement". In fact, Midler disclosure teaches only that the streams must directly impinge and teaches away from indirect impingement. For example, Midler states:

> Regardless of the number of jets used, the jet nozzles should be placed so that the fluid streams they emit will impinge, either inside the jet chamber or directly in the stirred vessel. The fluid jets must impinge to create an immediate high turbulence impact; concentric or converging jets generally create insufficient turbulence to achieve the required micromixing. When two jets are used with a jet chamber, as shown in FIG. 2 and FIG. 3, the two jet nozzles 7 are preferably arranged so that they are substantially diametrically opposed to each other with their outlet tips directed to face each other; i.e., the two jet nozzles are at or close to a 180 degree angle to each other from an overhead view. Preferably, each jet outlet nozzle can have a slight downward angle from the horizontal of about 10 degrees to help the flowing material move down and out of the chamber (column 6, lines 15-30; emphasis added).

Thus, direct impingement is required by Midler, even in the embodiments shown in Figs. 2 and 3which was cited by the Examiner. There is no teaching in Midler, either explicitly or implicitly, that the streams should "substantially avoid direct impingement." Applicants respectfully submit that any reading of Midler suggesting that the streams of Midler do not need to be directly impinging is not supported by the disclosure in Midler and, indeed, directly contradicts such disclosure. For these reasons, Claims 5 and 7 are not anticipated by Midler.

Claim Rejections 35 USC § 103

The Examiner rejects claims 1,5,7,9-11,18-21 and 26-28 under 35 USC 103(a) as being unpatentable over Midler in view of McIlvaine (US Patent No. 3,685,261). The Examiner suggests that Midler teaches fluid streams that would impact on the surfaces of a chamber and be redirected in the substantially opposite direction and also suggests that Midler teaches that the streams do not need to be directly impinging. The Examiner relies on McIlvaine for teaching the use of the Venturi effect.

As detailed above, Midler teaches away from "substantially avoiding direct impingement" and the application of McIlvaine does not resolve the problems of applying Midler to the claims of the present application. Consequently, the combination of Midler and McIlvaine does not make these claims of the present application obvious.

Allowable Subject Matter

Finally, it is noted, with appreciation, that the Examiner stated in the final Office Action that claim 2 and its dependent claims would be allowable if rewritten to overcome

the 35 §112, second paragraph rejection. Thus, the rejections based on Section 112, second paragraph having been overcome as discussed above, it is believed that at the very least, these claims should now be allowed.

However, Applicants also submit that based on the foregoing, all of the pending claims are now in condition for allowance. Reconsideration and allowance of such claims are respectfully requested. Applicants propose an interview may facilitate prosecution if the Examiner thinks this would be helpful.

Respectfully submitted,

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